

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

BARCLAY

Serial No.: 09/461,709

Filed: December 14, 1999

Atty. File No.: 2997-1-3-2

For: "LIPIDS EXTRACTED FROM
MICROORGANISMS"

) Group Art Unit: 1651

) Examiner: Ware, D.

) AMENDMENT AND RESPONSE

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted
to the Patent and Trademark Office on 1/28/02

SHERIDAN ROSS P.C.

KATHLEEN BUSSELL

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Examiner's Office Action having a mailing date of September 27, 2001,
please amend the above-identified U.S. patent application as follows:

IN THE CLAIMS:

Please amend Claim 61 as follows. Unamended Claims 53-60 and 62-66 are reiterated below
for the convenience of the Examiner:

53. (Reiterated) A process for producing lipids comprising:

(a) growing euryhaline microorganisms in a fermentation medium,
wherein said euryhaline microorganisms are capable of producing about 1.08 grams
per liter per day of long chain omega-3 fatty acids per 40 grams of sugar per liter at
a sodium ion concentration of 60% seawater, and

(b) extracting lipids from said euryhaline microorganisms.

54. (Reiterated) The process of Claim 53, wherein said euryhaline
microorganisms have exponential growth rates of at least about 5 doublings per day at 25°C.55. (Reiterated) The process of Claim 53, wherein said euryhaline
microorganisms have exponential growth rates of at least about 7 doublings per day at 30 °C.

56. (Reiterated) The process of Claim 53, wherein said euryhaline microorganisms are microorganisms of the order *Thraustochytriales*.

57. (Reiterated) The process of Claim 56, wherein said euryhaline microorganisms are selected from the group consisting of *Thraustochytrium*, *Schizochytrium*, and mixtures thereof.

58. (Reiterated) The process of Claim 57, wherein said euryhaline microorganisms are selected from the group consisting of ATCC 20888, ATCC 20889, ATCC 20890, ATCC 20891, ATCC 20892, and mixtures thereof.

59. (Reiterated) The process of Claim 53, wherein about 20% or less of the total fatty acids in said lipids are omega-6 fatty acids.

60. (Reiterated) The process of Claim 53, wherein at least about 49% of the total fatty acids of said lipids are omega-3 fatty acids.

C' 61. (Twice Amended) The process of Claim 53, wherein the ratio of docosahexaenoic acid (DHA) to eicosapentaenoic acid (EPA) in said lipids is about 7.07 or less.

62. (Reiterated) The process of Claim 53, wherein at least about 64.5% of omega-3 fatty acids in said lipids is DHA.

63. (Reiterated) The process of Claim 53, wherein at least about 86% of omega-3 fatty acids in said lipids is DHA.

64. (Reiterated) The process of Claim 53, wherein the ratio of EPA to DHA in said lipids is from about 1:1 to about 1:30.

65. (Reiterated) The process of Claim 53, wherein the ratio of DPA to DHA in said lipids is at least about 1:12.

66. (Reiterated) The process of Claim 53, wherein the total fatty acid composition in said lipids comprises about 5% or less of C20:4w6 fatty acid.